

Description of EPFD validation and results of examination

Input parameters

Mask link data

| Mask Id. | Direction | Minimum frequency, MHz | Maximum frequency, MHz | Linked orbit IDs / Satellite IDs |
|----------|-----------|------------------------|------------------------|----------------------------------|
| 1 | ↓ | 10700 | 12750 | All |
| 2 | ↓ | 17800 | 18600 | All |
| 3 | ↓ | 19700 | 20200 | All |
| 5 | ↑ | 12750 | 13250 | All |
| 6 | ↑ | 13750 | 14500 | All |
| 7 | ↑ | 27500 | 28600 | All |
| 8 | ↑ | 29500 | 30000 | All |
| 11 | ↔ | 10700 | 11700 | All |
| 13 | ↔ | 17800 | 18400 | All |

Common SNS Data

Common

| A.4.b.7.d.1 Exclusion zone type | A.4.b.7.d.1 Exclusion zone size, degrees |
|------------------------------------|---|
| N - satellite based angle | 10 |

Orbits

| Apogee/Perigee/Inclination | A.4.b.6.d Uses station keeping | A.4.b.6.e Uses specific precession |
|----------------------------|-----------------------------------|---------------------------------------|
| 435/435/50 | No keeping | Default |

Uplink

| A.4.b.7.b Earth station density (1/km ²) | A.4.b.7.c Average distance (km) | A.4.b.7.a number of satellites receiving simultaneously |
|---|------------------------------------|--|
| 5E-06 | 500 | 1 |

Downlink

| A.4.b.6.a Number of satellites transmitting to any latitude within corresponding range | | |
|---|-------------|--------|
| From latitude | To latitude | Number |
| -90 | 90 | 5 |

Group table

| Beam(s) | Direction | Minimum frequency, MHz | Maximum frequency, MHz | A.4.b.7.cbis Minimum elevation angle |
|------------------|-----------|------------------------|------------------------|---|
| KUU3 | R | 13750 | 14000 | 10 |
| KUU1, KUU2 | R | 12750 | 14500 | 10 |
| KAU1, KAU2, KAU3 | R | 27500 | 30000 | 10 |
| KUD1, KUD2 | E | 10700 | 12750 | 10 |
| KAD1, KAD2, KAD3 | E | 17700 | 20200 | 10 |

Results

| B1A Beam designation | B2 Emi-Rcp | BR7a Group id./ Target Group id. | GHz | Orbital planes id. no. | Mask ID | Article 22 Limit | Result | Article 22 Examination |
|-------------------------|---------------|--|-----------|------------------------------|---------|------------------|--------|---------------------------|
| KAU1 | R | 321774870 / 121760421 321774871 / 121760422 321774872 / 121760423 321774873 / 121760424 | 27.5-28.5 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |
| KAU1 | R | 321774874 / 121760425 321774875 / 121760426 | 29.5-30 | 1 - 30 | 8 | TABLE 22-2 | Pass | Favorable |
| KAU1 | R | 321774876 / 121760623 321774877 / 121760624 321774878 / 121760625 321774879 / 121760626 | 28.5-29.1 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |
| KAU2 | R | 321774880 / 121760431 321774881 / 121760432 | 27.5-28.5 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |

| | | | | | | | | |
|------|---|---|-------------------|--------|-------|---------------------------|--------------|-----------|
| | | 321774882 / 121760433 321774883 / 121760434 | | | | | | |
| KAU2 | R | 321774884 / 121760435 321774885 / 121760436 | 29.5-30 | 1 - 30 | 8 | TABLE 22-2 | Pass | Favorable |
| KAU2 | R | 321774886 / 121760627 321774887 / 121760628 321774888 / 121760629 321774889 / 121760630 | 28.5-29.1 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |
| KAU3 | R | 321774890 / 121760459 321774891 / 121760460 321774892 / 121760461 321774893 / 121760462 | 27.5-28.5 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |
| KAU3 | R | 321774894 / 121760463 321774895 / 121760464 | 29.5-30 | 1 - 30 | 8 | TABLE 22-2 | Pass | Favorable |
| KAU3 | R | 321774896 / 121760639 321774897 / 121760640 321774898 / 121760641 321774899 / 121760642 | 28.5-29.1 | 1 - 30 | 7 | TABLE 22-2 | Pass | Favorable |
| KUU1 | R | 321774900 / 121760545 321774901 / 121760546 321774902 / 121760547 321774903 / 121760548 321774904 / 121760549 321774905 / 121760550 321774906 / 121760551 | 12.75-13.25 | 1 - 30 | 5 | TABLE 22-2 | Pass | Favorable |
| KUU1 | R | 321774907 / 121760667 321774908 / 121760668 321774909 / 121760669 321774910 / 121760670 321774911 / 121760671 321774912 / 121760672 | 14-14.5 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU1 | R | 321774913 / 121760673 | 13.75-14.5 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU2 | R | 321774914 / 121760552 321774915 / 121760553 321774916 / 121760554 321774917 / 121760555 321774918 / 121760556 321774919 / 121760557 321774920 / 121760558 | 12.75-13.25 | 1 - 30 | 5 | TABLE 22-2 | Pass | Favorable |
| KUU2 | R | 321774921 / 121760674 321774922 / 121760675 321774923 / 121760676 321774924 / 121760677 321774925 / 121760678 321774926 / 121760679 | 14-14.5 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU2 | R | 321774927 / 121760680 | 13.75-14.5 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU3 | R | 321774928 / 121760563 | 13.75- 13.772 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU3 | R | 321774929 / 121760564 | 13.773- 13.779 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU3 | R | 321774930 / 121760565 | 13.778-14 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KUU3 | R | 321774931 / 121760566 | 13.75-14 | 1 - 30 | 6 | TABLE 22-2 | Pass | Favorable |
| KAD1 | E | 321774758 / 121760401 321774759 / 121760402 321774760 / 121760403 321774761 / 121760404 | 17.7-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD1 | E | 321774762 / 121760405 321774763 / 121760406 | 19.7-20.2 | 1 - 30 | 3 | TABLE 22-1C | Pass | Favorable |
| KAD1 | E | 321774764 / 121760607 321774765 / 121760609 321774766 / 121760611 321774767 / 121760613 | 18.1-18.6 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD1 | E | 321774768 / 121763481 321774769 / 121763482 321774770 / 121763483 321774771 / 121763484 | 17.8-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD2 | E | 321774772 / 121760411 321774773 / 121760412 321774774 / 121760413 321774775 / 121760414 | 17.7-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD2 | E | 321774776 / 121760415 321774777 / 121760416 | 19.7-20.2 | 1 - 30 | 3 | TABLE 22-1C | Pass | Favorable |

| | | | | | | | | |
|------|---|---|------------|--------|-------|--|--------------------------------------|-----------|
| KAD2 | E | 321774778 / 121760615 321774779 / 121760617 321774780 / 121760619 321774781 / 121760621 | 18.1-18.6 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD2 | E | 321774782 / 121763485 321774783 / 121763486 321774784 / 121763487 321774785 / 121763488 | 17.8-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD3 | E | 321774786 / 121760449 321774787 / 121760450 321774788 / 121760451 321774789 / 121760452 | 17.7-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD3 | E | 321774790 / 121760453 321774791 / 121760454 | 19.7-20.2 | 1 - 30 | 3 | TABLE 22-1C | Pass | Favorable |
| KAD3 | E | 321774792 / 121760631 321774793 / 121760633 321774794 / 121760635 321774795 / 121760637 | 18.1-18.6 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KAD3 | E | 321774796 / 121763489 321774797 / 121763490 321774798 / 121763491 321774799 / 121763492 | 17.8-18.2 | 1 - 30 | 2, 13 | TABLE 22-1B TABLE 22-3 | Pass Pass | Favorable |
| KUD1 | E | 321774800 / 121760489 321774801 / 121760490 321774802 / 121760491 321774803 / 121760492 321774804 / 121760493 321774805 / 121760494 321774806 / 121760495 | 10.7-11.2 | 1 - 30 | 1, 11 | RR 22.5C4 TABLE 22-1A TABLE 22-3 | Pass Pass Pass | Favorable |
| KUD1 | E | 321774807 / 121760496 321774808 / 121760497 321774809 / 121760498 321774810 / 121760499 321774811 / 121760500 321774812 / 121760501 321774813 / 121760502 | 12.5-12.75 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3 | Pass Pass Pass Pass Pass | Favorable |
| KUD1 | E | 321774814 / 121760503 321774815 / 121760504 321774816 / 121760505 321774817 / 121760506 321774818 / 121760507 321774819 / 121760508 321774820 / 121760509 | 11.7-12.2 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D | Pass Pass Pass Pass | Favorable |
| KUD1 | E | 321774821 / 121760510 321774822 / 121760511 321774823 / 121760512 321774824 / 121760513 321774825 / 121760514 321774826 / 121760515 321774827 / 121760516 | 12.2-12.75 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3 | Pass Pass Pass Pass Pass | Favorable |
| KUD1 | E | 321774828 / 121760653 321774829 / 121760654 321774830 / 121760655 321774831 / 121760656 321774832 / 121760657 321774833 / 121760658 321774834 / 121760659 | 11.2-11.7 | 1 - 30 | 1, 11 | RR 22.5C4 TABLE 22-1A TABLE 22-3 | Pass Pass Pass | Favorable |
| KUD2 | E | 321774835 / 121760517 321774836 / 121760518 321774837 / 121760519 321774838 / 121760520 321774839 / 121760521 321774840 / 121760522 321774841 / 121760523 | 10.7-11.2 | 1 - 30 | 1, 11 | RR 22.5C4 TABLE 22-1A TABLE 22-3 | Pass Pass Pass | Favorable |
| KUD2 | E | 321774842 / 121760524 321774843 / 121760525 321774844 / 121760526 321774845 / 121760527 321774846 / 121760528 321774847 / 121760529 321774848 / 121760530 | 12.5-12.75 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3 | Pass Pass Pass Pass Pass | Favorable |
| KUD2 | E | 321774849 / 121760531 321774850 / 121760532 | 11.7-12.2 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 | Pass Pass | Favorable |

| | | | | | | | | |
|------|---|---|------------|--------|-------|--|--------------------------------------|-----------|
| | | 321774851 / 121760533 321774852 / 121760534 321774853 / 121760535 321774854 / 121760536 321774855 / 121760537 | | | | TABLE 22-1A TABLE 22-1D | Pass Pass | |
| KUD2 | E | 321774856 / 121760538 321774857 / 121760539 321774858 / 121760540 321774859 / 121760541 321774860 / 121760542 321774861 / 121760543 321774862 / 121760544 | 12.2-12.75 | 1 - 30 | 1 | RR 22.5C4 RR 22.5C8 TABLE 22-1A TABLE 22-1D TABLE 22-3 | Pass Pass Pass Pass Pass | Favorable |
| KUD2 | E | 321774863 / 121760660 321774864 / 121760661 321774865 / 121760662 321774866 / 121760663 321774867 / 121760664 321774868 / 121760665 321774869 / 121760666 | 11.2-11.7 | 1 - 30 | 1, 11 | RR 22.5C4 TABLE 22-1A TABLE 22-3 | Pass Pass Pass | Favorable |

Notes:

1. Findings are promulgated as favorable when all applicable limits in Article 22 are met for given group of frequency assignments in all applicable scenarios.
2. The Result column can be either Pass or Fail (see Rec. ITU-R S.1503-2). N/A (Non Applicable) refers to the case when an applicable Article 22 limit is not examined in the current scenario.
3. Qualified Favorable is established due to continuous application of Resolution 85 (WRC-03) on request by the notifying administration.